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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,569	09/09/2003	George Emanuel	KSY 02655 PTUS	3413
32233	7590	09/19/2008	EXAMINER	
STORM LLP BANK OF AMERICA PLAZA 901 MAIN STREET, SUITE 7100 DALLAS, TX 75202			KIM, CHRISTOPHER S	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/658,569	Applicant(s) EMANUEL, GEORGE	
	Examiner Christopher S. Kim	Art Unit 3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 59-68 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 59-68 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 August 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The response filed November 12, 2007 is acknowledged.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Election/Restrictions

3. Reminder, applicant elected Invention I, Species A (figures 1-3) in the reply filed on November 4, 2005. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Drawings

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "gas generator" recited in claim 59; the "at least two struts" recited in claims 66 and 67; the "heating element" recited in claim 68 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate

prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. The amendment filed November 12, 2007 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the deletion of "Although the preferred embodiments of the present invention are described, the description is not intended to limit the scope of the invention as defined by the claims."

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

Art Unit: 3752

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 59-68 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 59 recites an "iodine injection system comprising: a gas generator...a cavity... a symmetric two-dimensional Minimum Length Nozzle (MLN)..." The amendment filed November 12, 2007 merely renames the claimed invention from a "laser having an iodine injection system" to an "iodine injection system." The body of the claim recites "a cavity" rather than a "laser cavity." Otherwise, the scope of the claimed invention is the same as that of the amendment filed August 7, 2007 which was deemed non-responsive because the newly presented claims 59-68 were drawn to a nonelected invention.

The claims, as originally filed, especially claim 1, discloses that the iodine injection system does not include a laser. The preamble of the claim indicates an intended use of the iodine injection system for a laser. The specification teaches that cavity 18 is a laser cavity. It appears that applicant is attempting to redefine the "iodine injection system" that is different than in the disclosure as originally filed.

Either, claims 59 constitutes new matter because applicant is changing the definition of the "iodine injection system," or claim 59 is drawn to a non-elected invention.

8. Claims 59-68 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "minimum" in claim 59 is a relative term which renders the claim indefinite. The term "minimum" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The specification uses the relative term "minimum" to define MLN. The specification discloses, on page 5, lines -9, "By definition, a MLN is an inviscid flow design approach for a divergent nozzle whose length between the throat and the exit plane is a minimum and where the flow in the exit plane is uniform and supersonic." The metes and bounds of what constitutes a "Minimum Length Nozzle (MLN)" cannot be determined. Additionally, it would appear that given a divergent nozzle whose length between the throat and the exit plane is a minimum and where the flow in the exit plane is uniform and supersonic, one of ordinary skill in the art would not know whether an inviscid flow design approach was used and would be infringing on applicant's claimed invention.

Claim 59 recites "a curved sonic line defining the transonic boundary of the flow of the first gas within the MLN" in lines 10-11. It would appear that the curved sonic line is determined not only by the nozzle but also by the operating conditions of the nozzle.

It is uncertain whether applicant is claiming particular operating conditions, and if so, what they are.

Claim 59 recites the limitation "the transonic boundary" in line 10. There is insufficient antecedent basis for this limitation in the claim.

Claim 60 recites the limitation "the downstream end" in line 2. There is insufficient antecedent basis for this limitation in the claim.

The term "near" in claim 60 is a relative term which renders the claim indefinite. The term "near" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is uncertain what distance is defined by the claim.

Claim 61 depends on itself.

Claim 61 recites the limitation "the downstream edge" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 62 depends on a canceled claim.

Claim Rejections - 35 USC § 103

9. Claims 59, 62, 63, 64, 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dickerson (6,072,820).

Dickerson discloses an iodine injection system comprising:

a gas generator 15;

a cavity 26;

a symmetric two dimensional minimum length nozzle 10 having:
a throat 18;
an exit plane (such as plane defined by wires 24);
at least one iodine injection strut 20 that is located downstream of the throat 18.

Dickerson discloses the limitations of the claimed invention with the exception a curved sonic line defining the transonic boundary of the flow of the first gas within the MLN. Applicant's specification discloses, on pages 5 and 17, that curved sonic line MLN are known in the art. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have used a curved sonic line MLN in the device of Dickerson to shorten the length of the nozzle.

Response to Arguments

10. Applicant's arguments filed November 12, 2007 have been fully considered but they are not persuasive.

Applicant argues that "MLN" is a term of art. Even if it is not accepted as a term of art, applicant is being his own lexicographer. Applicant's argument appears to be further evidence that the term is indefinite. Is MLN a term of art or is it being defined by applicant? If it is a term of art, what limitation does it define? If applicant is being his own lexicographer, is he defining a design process or an apparatus?

Applicant argues that "the description is not intended to limit the scope of the inventions as defined by the claims" is intended so that limitation will not be read in from

the specification into the claims, nothing more. Applicant appears to be arguing contradicting positions. If applicant is being his own lexicographer, the definition provided in the specification must be read into the claim as limitations by interpreting the term as defined in the specification. Applicant argues that the specification should not be read into the claims.

Remainder of applicant's arguments with respect to claim 59-68 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher S. Kim whose telephone number is (571) 272-4905. The examiner can normally be reached on Monday - Friday, 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571) 272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Christopher S. Kim/
Primary Examiner, Art Unit 3752

CK